

REMARKS

Claims 22-42 are pending in this application, with claims 22, 27, 30, 32, 38, 40, and 41 being hereby amended. In the Office Action of February 24, 2009, the Examiner objected to claims 22, 38, 40, and 41; rejected claim 40 under 35 U.S.C. §§ 112 and 101; and rejected claims 22-42 under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent Application Publication No. 2002/0065935 ("Koperda") in view of U.S. Patent Publication No. 2002/0006137 ("Rabenko"). Applicant traverses these objections and rejections for at least the reasons discussed below.

I. Claim Objections

Claims 22, 38, 40, and 41 are objected to for their use of the term "adapted to." According to the Examiner, the "adapted to" claim language suggests or makes optional certain steps but does not require them, and therefore does not limit the scope of the claim. Although Applicant does not necessarily agree that the term "adapted to" in the claims makes any steps optional, Applicant nonetheless amends the claims to eliminate the "adapted to" language. Therefore, Applicant requests that the objection to claims 22, 38, 40, and 41 be withdrawn.

II. Claim Rejections Under 35 U.S.C. §§ 112 and 101

Claim 40 is rejected under 35 U.S.C. § 112, second paragraph as allegedly being unclear for its recitation of structural elements within a method claim, and under 35 U.S.C. § 101 for allegedly claiming both an apparatus and a process of using the apparatus. In response, Applicant has amended claim 40 to more clearly recite a method. Certain structural elements are still recited in the claim, but these are necessary to provide a context for the method steps, which relate to those elements.

Claims including mixed attributes, such as devices and one or more steps performed by those devices are proper. M.P.E.P. § 2106. For these reasons, Applicant requests that the rejections of claim 40 under 35 U.S.C. § 112 and 101 be withdrawn.

III. Claim Rejections Under 35 U.S.C. § 103(a)

Claims 22-42 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Koperda in view of Rabenko. Applicant respectfully traverses these rejections for at least the following reasons.

Independent claim 22 recites, for example, “a local network interface device . . . including **a media independent interface** and a disable input, [and] a data processing unit interacting with . . . the local network interface device through **a media independent interface bus connected to the media independent interface,**” and further recites “an expansion bus allowing expandability of the apparatus connecting at least one expansion module to the base module, **the expansion bus comprising the media independent interface bus,** a local network communication bus, and the disable signal line.” (Emphases added.)

Neither Koperda nor Rabenko, either alone or in combination, discloses these features. The Examiner concedes that Koperda does not disclose a media independent interface. Office Action at 7. The Examiner states, however, that “Rabenko discloses a media independent interface,” and “it would have been obvious . . . to incorporate the media independent interface to the system of Koperda,” to “use any of types of PHY devices without redesigning or replacing the MAC hardware.” *Id.* Applicant respectfully traverses.

Claim 22 does not merely recite a “media independent interface.” Instead, claim 22 recites that **“the media independent interface bus” is included in an “expansion bus” of the base module.** Moreover, the inclusion of the media independent interface bus in the expansion bus is not trivial. Rather, it allows for certain expandability features, such as described at least in claims 33-35. Neither Koperda nor Rabenko, either alone or in combination, discloses or suggests a “media independent interface bus” included in an “expansion bus” of a base module.

Koperda discloses three communications buses which appear to pass through different modules. See Fig. 3; ¶ 47. However, none of these buses is a media independent interface bus.

Claim 22 further recites that the local network interface device of the base module includes a “disable input,” and recites “a disable signal line coupled to the disable input of the local network device and, when set in a disable state, which drives the local network interface device into a disabled state in which the local network interface device does not engage the media independent interface bus and the local network port,” and “an expansion bus . . . comprising . . . the disable signal line.” The Examiner concedes that Koperda does not disclose these features. Instead, the Examiner states that Koperda discloses “modules A, B, C, and D turning off respective communication bus 1 pass-thru switches (paragraph 0052 lines 1-3),” and states “it would have been obvious . . . to implement disable input to turn off the communication bus of corresponding modules in order to control modular gateway efficiency.” Office Action at 6-7.

However, claim 22 recites that the disable input is included in the local network interface of the **base module**, and further recites that when the disable signal line coupled to the disable input is set in a disable state, it drives the local network interface device (of the base module) into a disabled state. On the contrary, the description of turning off the communication bus pass-thru switches in Koperda teaches that even when all of the communication pass-thru switches are turned off, “the system controller device D” (i.e., the base module) is still fully functional. See, e.g., Koperda, ¶¶ 0050-0054. As such, Koperda teaches away from including a disable signal line coupled to a disable input in a base module, and fails to disclose that when the disable input is “set in a disable state,” it “**drives a local network interface [of the base module] into a disabled state,**” as recited in claim 22.

For at least the above reasons, neither Koperda, nor Rabenko, either alone or in combination, discloses or renders obvious the apparatus recited in claim 22. As such, the rejection of claim 22 under 35 U.S.C. § 103(a) in view of Koperda and Rabenko should be withdrawn. In addition, because dependent claims 23-39, 41, and 42 include all of the recitations of claim 22, the rejection of dependent claims 23-39, 41, and 42 should also be withdrawn, for at least the same reasons discussed above in connection with claim 22.

Independent claim 40 recites a method of expanding a modular apparatus, including, among other things, the following:

coupling to a base module of the modular apparatus at least one expansion module including at least one expansion local network port for connection to the local data communication network and an expansion local network interface device including a media independent interface;
disabling a local network interface device of the base module, the local network interface device including a media independent interface for

handling communications with the local data communication network, and being coupled to at least one local network port of the base module; [and] controlling the expansion local network interface device by means of a data processing unit of the base module through the media independent interface of the expansion local network interface device.

For reasons similar to those discussed above, neither Koperda nor Rabenko, either alone or in combination, discloses these features. Notably, neither Koperda nor Rabenko, either alone or in combination, discloses “**disabling a local network interface of the base module,**” or controlling an expansion local network interface “by means of a data processing unit of the base module **through the media independent interface of the expansion local network interface device.**” Therefore, the rejection of claim 40 under 35 U.S.C. § 103(a) in view of Koperda and Rabenko should be withdrawn.

Dependent claims 30, 31, and 39 are also distinguishable and non-obvious over the cited references for additional reasons.

For example, claim 30 recites that “the data processing unit bus, the media independent interface bus, the local network communication bus and the disable line are propagated from the input expansion connector to the output expansion connector of the expansion module.” Claim 31, on the other hand, recites that “the data processing unit bus is propagated from the input expansion connector to the output expansion connector of the expansion module, while the media independent interface bus, the local network communication bus and the disable line are not propagated to the output expansion connector.” Neither Koperda nor Rabenko, either alone or in combination, disclose these features.

Furthermore, claim 39 recites that “the base module comprises a power supply input for receiving an unregulated power supply, and at least one first power supply regulator for generating a first regulated power supply from the unregulated power supply, the first regulated power supply supplying the data processing unit and the local network interface device, and in which **the expansion bus comprises unregulated power supply distribution lines**, the at least one **expansion module comprising at least one respective second power supply regulator generating a second regulated power supply from the unregulated power supply.**” The Examiner states that “Koperda discloses power supply providing the power for the stack of modules (paragraph 0042 lines 1-2). Therefore, it would have been obvious . . . to use power supply to generate regulated power supply from unregulated power supply in order to provide power to other modules.”

Applicant respectfully disagrees. Koperda discloses that power is controlled at power modules A or B. See Fig. 4; ¶¶ 0060-0067. Thus, this power is regulated before being supplied to additional modules. Neither Koperda nor Rabenko disclose including **unregulated power supply** distribution lines in the modular system, and Examiner gives no reason why it would have been obvious to include such unregulated power supply distribution lines instead of the regulated power supply lines disclosed by Koperda.

For at least these additional reasons, the rejection of dependent claims 30, 31, and 39 in view of Koperda and Rabenko should be withdrawn.

CONCLUSION

In view of the foregoing, Applicant respectfully requests that the rejection of pending claims 22-42 be withdrawn, and the claims be allowed.

The Office Action contains characterizations of the claims and the related art with which Applicant does not necessarily agree. Unless expressly noted otherwise, Applicant declines to subscribe to any statement or characterization in the Office Action.

If a telephone interview will expedite issuance of this application, the Examiner is requested to call Applicant's representative whose name, registration number, and telephone number appear below, to discuss any remaining issues.

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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